



PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	Conf. No.:	1668
Strom et al.)		
)	Art Unit:	1653
Serial No.: 10/785,210)		
)	Examiner:	Mayer
Filed: February 24, 2004)		
)	Docket No.:	00588.105030
For: Periodic Antimicrobial Peptides)		

**REPLACEMENT OF SEQUENCE LISTING
FILED UNDER 37 CFR § 1.825**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

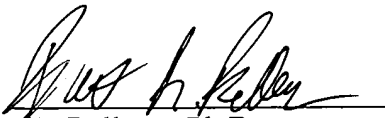
Applicants respectfully request that the paper copy of the sequence listing previously filed in the referenced application be replaced with the substitute sheets filed herewith. I hereby state that the substitute paper copy includes no new matter.

Applicants also submit a substitute copy of the sequence listing in computer readable form. The substitute computer readable copy is identical to the substitute paper copy. I hereby state that the substitute computer readable copy includes no new matter. The computer readable copy of the sequence listing is named "Sequence Listing" and is on the enclosed 1.44 MB IBM diskette.

Support for the now included sequence numbers 57 and 58 can be found on page 8 of the specification.

No fees are believed to be due in connection with this submission. However, should the Commissioner determine otherwise, he is authorized to charge such fees to Deposit Account No. 11-0980.

Respectfully submitted,

By: 

Brent R. Bellows, Ph.D.

Reg. No. 54,709

Date: April 20, 2005

KING & SPALDING LLP
191 Peachtree Street
45th Floor
Atlanta, GA 30303-1763
Tel.: (404) 572-4600



Periodic Antimicrobial Peptides.ST25.txt
SEQUENCE LISTING

<110> The Dow Chemical Company
Strom, Robert M.
Brodsema, Philip J.

<120> Periodic Antimicrobial Peptides

<130> 62424a

<140> 10/785,210

<141> 2004-02-24

<160> 58

<170> PatentIn version 3.2

<210> 1

<211> 16

<212> PRT

<213> Artificial

<220>

<223> Periodic Peptide

<400> 1

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
1 5 10 15

<210> 2

<211> 20

<212> PRT

<213> artificial

<220>

<223> Periodic Peptide

<400> 2

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
1 5 10 15

Lys Phe Ala Lys
20

<210> 3

<211> 24

<212> PRT

<213> artificial

<220>

<223> Periodic Peptide

<400> 3

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
1 5 10 15

Periodic Antimicrobial Peptides.ST25.txt

Lys Phe Ala Lys Lys Phe Ala Lys
20

<210> 4
<211> 28
<212> PRT
<213> artificial

<220>
<223> Periodic Peptide

<400> 4

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
1 5 10 15

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
20 25

<210> 5
<211> 32
<212> PRT
<213> artificial

<220>
<223> Periodic Peptides

<400> 5

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
1 5 10 15

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
20 25 30

<210> 6
<211> 48
<212> PRT
<213> artificial

<220>
<223> Periodic Peptide

<400> 6

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
1 5 10 15

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
20 25 30

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
35 40 45

<210> 7

Periodic Antimicrobial Peptides.ST25.txt

<211> 68
<212> PRT
<213> artificial

<220>
<223> Periodic Peptide

<400> 7

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
1 5 10 15

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
20 25 30

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
35 40 45

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
50 55 60

Lys Phe Ala Lys
65

<210> 8
<211> 84
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 8

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
1 5 10 15

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
20 25 30

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
35 40 45

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
50 55 60

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
65 70 75 80

Lys Phe Ala Lys

Periodic Antimicrobial Peptides.ST25.txt

<210> 9
 <211> 24
 <212> PRT
 <213> artificial

<220>
 <223> Periodic Peptide

<400> 9

Arg Phe Ala Arg Arg Phe Ala Arg Arg Phe Ala Arg Arg Phe Ala Arg
 1 5 10 15

Arg Phe Ala Arg Arg Phe Ala Arg
 20

<210> 10
 <211> 28
 <212> PRT
 <213> artificial

<220>
 <223> Periodic Peptide

<400> 10

Arg Phe Ala Arg Arg Phe Ala Arg Arg Phe Ala Arg Arg Phe Ala Arg
 1 5 10 15

Arg Phe Ala Arg Arg Phe Ala Arg Arg Phe Ala Arg
 20 25

<210> 11
 <211> 32
 <212> PRT
 <213> artificial

<220>
 <223> Periodic Peptide

<400> 11

Arg Phe Ala Arg Arg Phe Ala Arg Arg Phe Ala Arg Arg Phe Ala Arg
 1 5 10 15

Arg Phe Ala Arg Arg Phe Ala Arg Arg Phe Ala Arg Arg Phe Ala Arg
 20 25 30

<210> 12
 <211> 24
 <212> PRT
 <213> artificial

<220>
 <223> Periodic Peptide

<400> 12

Periodic Antimicrobial Peptides.ST25.txt

Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys
1 5 10 15

Phe Ala Lys Lys Phe Ala Lys Lys
20

<210> 13
<211> 24
<212> PRT
<213> artificial

<220>
<223> Periodic Peptide

<400> 13

Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe
1 5 10 15

Ala Lys Lys Phe Ala Lys Lys Phe
20

<210> 14
<211> 24
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 14

Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala
1 5 10 15

Lys Lys Phe Ala Lys Lys Phe Ala
20

<210> 15
<211> 20
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 15

Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu
1 5 10 15

Leu Lys Lys Leu
20

Periodic Antimicrobial Peptides.ST25.txt

<210> 16
 <211> 24
 <212> PRT
 <213> artificial

<220>
 <223> periodic peptide

<400> 16

Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu
 1 5 10 15

Leu Lys Lys Leu Leu Lys Lys Leu
 20

<210> 17
 <211> 28
 <212> PRT
 <213> artificial

<220>
 <223> periodic peptide

<400> 17

Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu
 1 5 10 15

Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu
 20 25

<210> 18
 <211> 32
 <212> PRT
 <213> artificial

<220>
 <223> periodic peptide

<400> 18

Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu
 1 5 10 15

Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu Leu Lys Lys Leu
 20 25 30

<210> 19
 <211> 28
 <212> PRT
 <213> artificial

<220>
 <223> periodic peptide

<400> 19

Periodic Antimicrobial Peptides.ST25.txt

Lys Phe Ala Phe Lys Phe Ala Phe Lys Phe Ala Phe Lys Phe Ala Phe
1 5 10 15

Lys Phe Ala Phe Lys Phe Ala Phe Lys Phe Ala Phe
20 25

<210> 20
<211> 28
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 20

Lys Phe Phe Lys Lys Phe Phe Lys Lys Phe Phe Lys Lys Phe Phe Lys
1 5 10 15

Lys Phe Phe Lys Lys Phe Phe Lys Lys Phe Phe Lys
20 25

<210> 21
<211> 28
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 21

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
1 5 10 15

Lys Phe Ala Lys Lys Phe Ala Lys Lys Phe Ala Lys
20 25

<210> 22
<211> 28
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 22

Lys Ala Ala Lys Lys Ala Ala Lys Lys Ala Ala Lys Lys Ala Ala Lys
1 5 10 15

Lys Ala Ala Lys Lys Ala Ala Lys Lys Ala Ala Lys
20 25

Periodic Antimicrobial Peptides.ST25.txt

<210> 23
 <211> 28
 <212> PRT
 <213> artificial

<220>
 <223> periodic peptide

<400> 23

Lys Lys Ala Lys Lys Lys Ala Lys Lys Lys Ala Lys Lys Lys Ala Lys
 1 5 10 15

Lys Lys Ala Lys Lys Lys Ala Lys Lys Lys Ala Lys
 20 25

<210> 24
 <211> 15
 <212> PRT
 <213> artificial

<220>
 <223> periodic peptide

<400> 24

Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys
 1 5 10 15

<210> 25
 <211> 18
 <212> PRT
 <213> artificial

<220>
 <223> periodic peptide

<400> 25

Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys
 1 5 10 15

Phe Lys

<210> 26
 <211> 21
 <212> PRT
 <213> artificial

<220>
 <223> periodic peptide

<400> 26

Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys
 1 5 10 15

Periodic Antimicrobial Peptides.ST25.txt

Phe Lys Lys Phe Lys
20

<210> 27
<211> 24
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 27

Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys
1 5 10 15

Phe Lys Lys Phe Lys Lys Phe Lys
20

<210> 28
<211> 27
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 28

Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys
1 5 10 15

Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys
20 25

<210> 29
<211> 30
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 29

Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys
1 5 10 15

Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys
20 25 30

<210> 30
<211> 36
<212> PRT
<213> artificial

Periodic Antimicrobial Peptides.ST25.txt

<220>

<223> periodic peptide

<400> 30

Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys
1 5 10 15

Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe
20 25 30

Lys Lys Phe Lys
35

<210> 31

<211> 48

<212> PRT

<213> artificial

<220>

<223> periodic peptide

<400> 31

Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys
1 5 10 15

Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe
20 25 30

Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys
35 40 45

<210> 32

<211> 63

<212> PRT

<213> artificial

<220>

<223> periodic peptide

<400> 32

Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys
1 5 10 15

Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe
20 25 30

Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys
35 40 45

Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys Lys Phe Lys

50

<210> 33
<211> 6
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 33

Phe Lys Ala Phe Lys Ala
1 5

<210> 34
<211> 12
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 34

Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala
1 5 10

<210> 35
<211> 18
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 35

Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe
1 5 10 15

Lys Ala

<210> 36
<211> 21
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 36

Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe
1 5 10 15

Periodic Antimicrobial Peptides.ST25.txt

Lys Ala Phe Lys Ala
20

<210> 37
<211> 24
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 37

Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe
1 5 10 15

Lys Ala Phe Lys Ala Phe Lys Ala
20

<210> 38
<211> 27
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 38

Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe
1 5 10 15

Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala
20 25

<210> 39
<211> 30
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 39

Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe
1 5 10 15

Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala
20 25 30

<210> 40
<211> 51
<212> PRT
<213> artificial

Periodic Antimicrobial Peptides.ST25.txt

<220>

<223> periodic peptide

<400> 40

Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe
1 5 10 15

Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys
20 25 30

Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala
35 40 45

Phe Lys Ala
50

<210> 41

<211> 63

<212> PRT

<213> artificial

<220>

<223> periodic peptide

<400> 41

Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe
1 5 10 15

Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys
20 25 30

Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala
35 40 45

Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala Phe Lys Ala
50 55 60

<210> 42

<211> 4

<212> PRT

<213> artificial

<220>

<223> periodic peptide

<400> 42

Leu Lys Leu Lys
1

<210> 43

<211> 10

Periodic Antimicrobial Peptides.ST25.txt

<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 43

Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys
1 5 10

<210> 44
<211> 16
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 44

Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys
1 5 10 15

<210> 45
<211> 18
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 45

Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys
1 5 10 15

Leu Lys

<210> 46
<211> 20
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 46

Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys
1 5 10 15

Leu Lys Leu Lys
20

<210> 47

Periodic Antimicrobial Peptides.ST25.txt

<211> 22
 <212> PRT
 <213> artificial

<220>
 <223> periodic peptide

<400> 47

Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys
 1 5 10 15

Leu Lys Leu Lys Leu Lys
 20

<210> 48
 <211> 24
 <212> PRT
 <213> artificial

<220>
 <223> periodic peptide

<400> 48

Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys
 1 5 10 15

Leu Lys Leu Lys Leu Lys Leu Lys
 20

<210> 49
 <211> 36
 <212> PRT
 <213> artificial

<220>
 <223> periodic peptide

<400> 49

Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys
 1 5 10 15

Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys
 20 25 30

Leu Lys Leu Lys
 35

<210> 50
 <211> 48
 <212> PRT
 <213> artificial

<220>

Periodic Antimicrobial Peptides.ST25.txt

<223> periodic peptide

<400> 50

Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys
1 5 10 15

Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys
20 25 30

Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys Leu Lys
35 40 45

<210> 51

<211> 14

<212> PRT

<213> artificial

<220>

<223> periodic peptide

<400> 51

Leu Arg Leu Arg Leu Arg Leu Arg Leu Arg Leu Arg Leu Arg
1 5 10

<210> 52

<211> 18

<212> PRT

<213> artificial

<220>

<223> periodic peptide

<400> 52

Leu Arg Leu Arg Leu Arg Leu Arg Leu Arg Leu Arg Leu Arg
1 5 10 15

Leu Arg

<210> 53

<211> 22

<212> PRT

<213> artificial

<220>

<223> periodic peptide

<400> 53

Leu Arg Leu Arg Leu Arg Leu Arg Leu Arg Leu Arg Leu Arg
1 5 10 15

Leu Arg Leu Arg Leu Arg

20

<210> 54
<211> 33
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 54

Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys
1 5 10 15

Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly
20 25 30

Lys

<210> 55
<211> 45
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 55

Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys
1 5 10 15

Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly
20 25 30

Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys Lys Gly Lys
35 40 45

<210> 56
<211> 21
<212> PRT
<213> artificial

<220>
<223> periodic peptide

<400> 56

Lys Thr Lys Lys Thr Lys Lys Thr Lys Lys Thr Lys Lys Thr Lys Lys
1 5 10 15

Thr Lys Lys Thr Lys
20

Periodic Antimicrobial Peptides.ST25.txt

<210> 57
 <211> 23
 <212> PRT
 <213> artificial

<220>
 <223> D2A21

<400> 57

Phe Ala Lys Lys Phe Ala Lys Lys Phe Lys Lys Phe Ala Lys Lys Phe
 1 5 10 15

Ala Lys Phe Ala Phe Ala Phe
 20

<210> 58
 <211> 17
 <212> PRT
 <213> artificial

<220>
 <223> D4E1

<400> 58

Phe Lys Leu Arg Ala Lys Ile Lys Val Arg Leu Arg Ala Lys Ile Lys
 1 5 10 15

Leu